

## Exhibit A



## Exhibit B



## DEPARTMENT OF MILITARY AFFAIRS BLUEGRASS STATION DIVISION

January 13, 2014

### CONTRACTOR PROCEDURES GUIDE

#### GENERAL

Provisions contained in this guide are not intended to be all inclusive; however, adherence to the guidance provided is essential to safe and efficient operations during construction. Safety is of paramount importance, and all personnel are expected to abide by the rules set forth – further, individuals shall immediately report any unsafe act or condition(s) to the appropriate responsible individual and/or entity.

#### SAFETY AND ENVIRONMENTAL

- **The General Contractor (GC)** (also includes sub-contractors, vendor, material deliveries, etc.) shall check-in with BGS Maintenance Branch POC and/or the specific building occupant POC at the beginning and end of each shift. Bluegrass Station (BGS) will advise GC of any work schedule changes or restrictions taking place at any given time that may affect the work.
- Access to the interior of Buildings is restricted and shall be coordinated, cleared and authorized with BGS Officials and/or Building Occupant POC.
- GC and subcontractors' point of contact information (cell & office phones, etc.) shall be provided to BGS Officials for direct communications when required.
- Foreign Object Debris (FOD) Control – GC and subcontractors shall maintain a clean project site and remove all debris and secure all materials each work day.
- Location of portable toilets shall be coordinated with BGS Officials.
- Utilities Provided by BGS - GC, contractor personnel, prime and sub-contractors shall monitor usage of water and electricity and shall take all actions and precautions to prevent misuse and wasting of these resources.
- Entry points to and from the project site shall be designated by BGS Officials and/or Building Occupant POC.
- Authorized smoking areas will be designated by BGS Officials and/or Building Occupant POC. Smoking is NOT allowed anywhere inside any building. The GC will provide ash cans and be responsible for keeping the area clean.
- Hazardous Materials: Prior to the use of chemicals/substances, Material Safety Data Sheets (MSDS) shall be provided to BGS Officials for review and approval prior to use.
- Construction waste containers shall remain closed; no open top roll-away dumpsters are allowed unless they can be sufficiently maintained to prevent materials from being blown from the containers. All materials contained within containers is the property of Bluegrass Station and shall remain in the containers; "dumpster diving" is NOT allowed.
- Speed limit on Bluegrass Station property is 15 MPH.
- Contractor shall keep dust and dirt infiltration to a minimum and provide protection measures as necessary.
- The use of cranes shall be closely coordinated with BGS Officials.

- Construction Entrance – All equipment and material deliveries are required to enter at BGS Gate # 5, 3170 Houston-Antioch Road, Lexington, KY (*Alternate arrangements may be made at other BGS access points when needed.*)
- Excavation on BGS property – Underground Facility Damage Prevention: all requirements of the **Kentucky Call Before You Dig Law, KRS 367.4901 – 367.4917** shall be strictly adhered to. Each contractor or sub-contractor shall contact 811 in advance of any and all excavation activities (piggy-backing of requests by multiple contractors to locate are not allowed).

### SECURITY

- General Contractor's personnel, prime and sub-contractors and suppliers/vendors on-site, shall be U.S. citizens.
- Entry to BGS property shall be controlled by its security personnel (Logan Security). Temporary vehicle passes will be issued by BGS security personnel to each person working at the project site. A list of all contractor personnel is required.
- All material and equipment deliveries are required to enter at Gate # 5 at 3170 Houston-Antioch Road, Lexington, KY (*Alternate arrangements may be made at other BGS access points when needed.*)
- Vehicles accessing Bluegrass Station property and the project site are subject to search by BGS Officials and/or Logan Security Guards upon requesting entry at Gates 1 & 5.
- The only vehicles permitted on the project site will be marked/labeled company vehicles. A list of all company vehicles shall be provided to BGS prior to being allowed on the project site. The contractor is encouraged to use company vehicles and carpool to limit the number of privately owned vehicles (POVs) on BGS property as parking is extremely limited. Contractors may be required to park in lot A, near the BGS Gate 1 entrance, and carpool from there to the project site.
- Off Limits Areas – All buildings/facilities within the fenced SOFSA/Lockheed Martin compound and other areas around or within any given building as defined unless prior access approval is received and coordinated.
- Restricted Areas - GC, contractor personnel, prime and sub-contractors shall refrain from "driving around" BGS property. Traveling is limited to access for daily parking and/or project site access.
- Photography is strictly prohibited; this includes the use of cell phones and all photographic devices. In the event the contractor must take project related photographs, they shall contact BGS for authorization and coordination prior to taking the photographs.
- Normal working hours are 7:00 a.m. – 4:30 p.m. however; other hours are negotiable through coordination with BGS Officials. Prior notice and approval is required for working after normal working hours or on weekends.

#### ***BGS Points of Contact:***

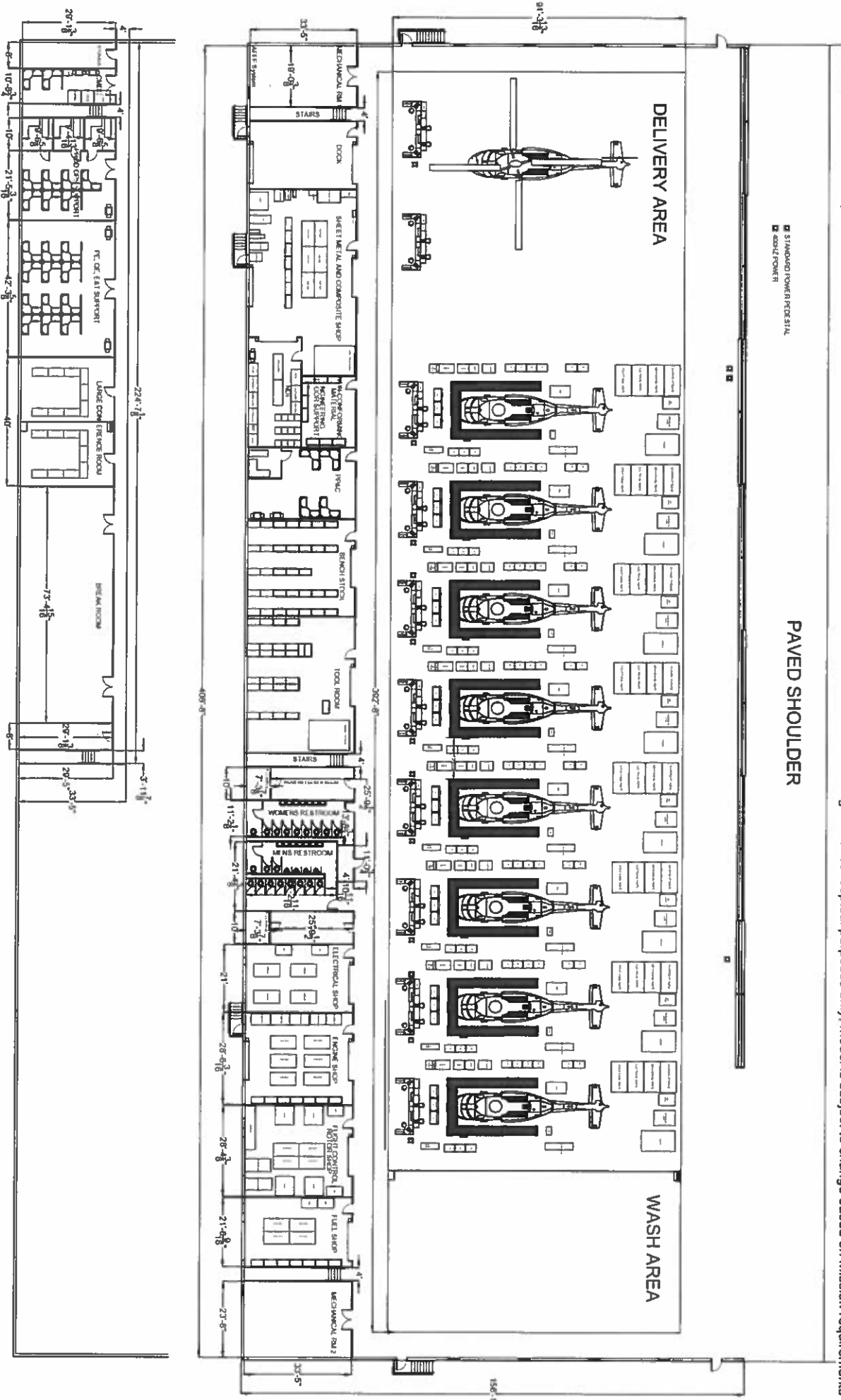
*Paul T. Cable – 859.293.3203*

*David Jones – 859.293.3698*

*Andy Daigle – 859.293.4411*

**End**

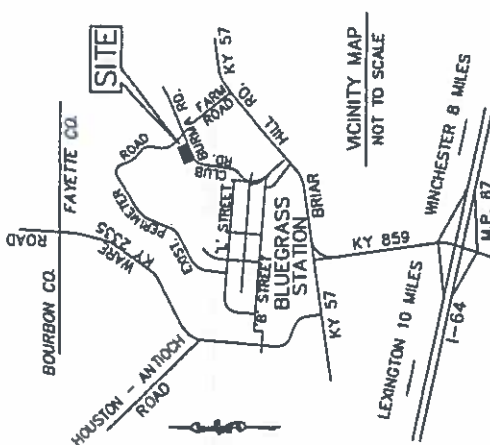
## Exhibit C



BUILDING 352

## Exhibit D





**LEASE BOUNDARY LINE TABLE**

NUM	BEARING	DISTANCE
L-1	N76°29'50"W	116.00'
L-2	N13°30'10"E	260.00'
L-3	S76°29'50"E	270.33'
L-4	N13°30'10"E	90.00'
L-5	S76°29'50"E	100.00'
L-6	S13°30'10"W	90.00'
L-7	S76°29'50"E	270.33'
L-8	S13°30'10"W	260.00'
L-9	N76°29'50"W	116.00'
L-10	S13°30'10"W	156.92'
L-11	N76°29'50"W	268.67'
L-12	S13°30'10"W	137.80'
L-13	S71°56'11"W	110.04'
L-14	N18°06'51"W	17.82'
L-15	N76°29'50"W	76.94'
L-16	N13°30'10"E	296.92'

**LEASE BOUNDARY CURVE TABLE**

NUM	ARC	RADIUS	BEARING	DISTANCE
C-1	62.87'	40.00'	N26°54'40"E	56.59'
C-2	40.76'	40.00'	N47°18'20"W	39.02'
C-3	84.91'	40.00'	S47°18'20"E	69.84'

**LEGEND**

- COMM. OF KY BOUNDARY LINE
- LEASE BOUNDARY LINE (THIS SURVEY)
- "THE" LINE
- BROKEN LINE
- STATE PLANE COORDINATES AT LEASE BOUNDARY CORNERS (KY NORTH ZONE) BASED ON NGS MONUMENT A-150 (PMD H20130)

**SURVEY CLASSIFICATION**

THIS SURVEY AND PLAT MEETS OR EXCEEDS THE TECHNICAL STANDARDS FOR A CLASS 'B' SURVEY FOR RURAL LAND IN ACCORDANCE WITH 201 KAR 18.150.

**REFERENCE BEARING**

THE BEARINGS SHOWN HEREON ARE BASED ON GRID NORTH KY STATE PLANE COORDINATES, NORTH ZONE, NAD-83, GEOID 98, NAVD 1988.

**STATEMENT ON PRECISION & MEASUREMENTS**

THIS SURVEY WAS PERFORMED BY THE RANDOM TRAVERSE METHOD. THE UNADJUSTED LINEAR ERROR OF CLOSURE RATIO OF THE TRAVERSE EXCEEDS 1 PART IN 34,690.

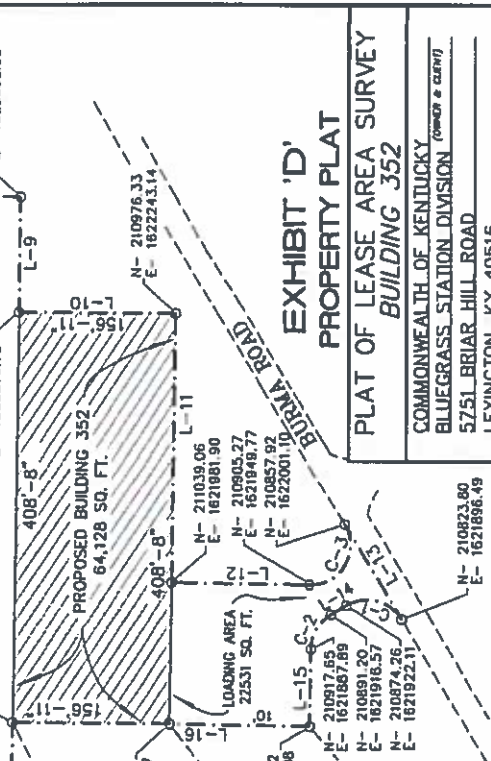
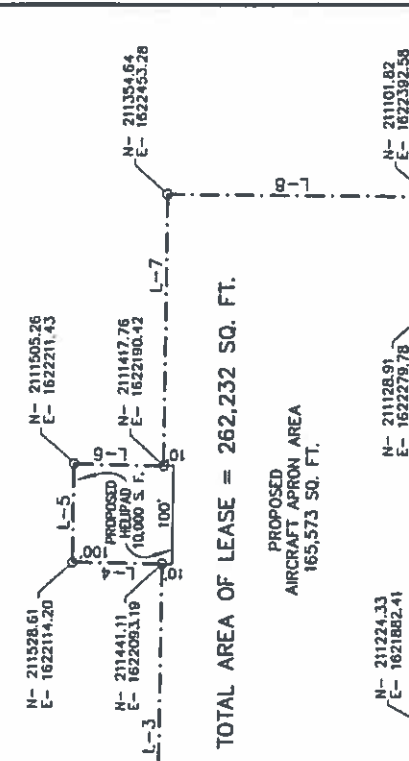
**LAND SURVEYORS CERTIFICATE**

I HEREBY CERTIFY THAT THIS BOUNDARY SURVEY AND PLAT WERE MADE UNDER MY SUPERVISION AND THAT THE ANGULAR AND LINEAR MEASUREMENTS OF THE BOUNDARY LINES AS WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS SURVEY AND PLAT MEET OR EXCEEDS THE MINIMUM STANDARDS OF GOVERNING AUTHORITIES. THIS SURVEY AND PLAT IS ONLY FOR THE LEASE AREA AND THE PORTION OF BOUNDARY REFERENCED HEREON.

STATE OF KENTUCKY  
MORRIS A. TALBOT  
2421  
LICENSED LAND SURVEYOR  
5-11-2017

**MONUMENT LEGEND**

1/2" REBAR (FOUND) WITH CAP STAMPED "USCE"



**EXCEPTIONS TO SURVEY**

THIS LEASE AREA SURVEY IS SUBJECT TO ALL RIGHTS OF WAY, EASEMENTS, CONVEYANCES AND RESTRICTIONS THAT A TITLE EXAMINATION WOULD REVEAL. NO REPORT WAS PROVIDED TO THE SURVEYOR FOR PROJECT.

**GRAPHIC SCALE (FEET)**

0 150 300

**EXHIBIT 'D'**

**PROPERTY PLAT**

**PLAT OF LEASE AREA SURVEY**

**BUILDING 352**

COMMONWEALTH OF KENTUCKY  
BLUEGRASS STATION DIVISION (POWER & CABLE)  
5751 BRIAR HILL ROAD  
LEXINGTON, KY 40516  
TITLE REFERENCE D.B. 2835 PAGE 242  
COUNTY OF FAYETTE, KENTUCKY

**Advanced**  
Engineering and Surveying, LLC  
319 TUCKER STATION ROAD  
LOUISVILLE, KENTUCKY 40243  
(502) 244-3078

SITE ADDRESS: 5721 BRIAR HILL RD.

THIS PLAT REPRESENTS A PARTIAL BOUNDARY SURVEY AND COMPLETES WITH 201 KAR 18.150.

PLAT SCALE: 1 INCH EQUALS 150 FEET.

BOUNDARY SURVEY DATE: 12-14-2013

DRAWN: 5-10-2017 FILE: 5721BRIARHILL.DWG

## Exhibit E

**Report of Preliminary Geotechnical Services  
Bluegrass Station Building 198  
Lexington, Kentucky  
S&ME Project No. 1183-17-020**



Prepared for:  
**Commonwealth of Kentucky Finance and Administration Cabinet  
Department for Facilities and Support Services - Division of Engineering and Contract  
Administration  
403 Wapping Street, 1<sup>st</sup> Floor  
Frankfort, Kentucky 40601**

Prepared by:  
**S&ME, Inc.  
2020 Liberty Road, Suite 105  
Lexington, Kentucky 40505**

**June 13, 2017**



June 13, 2017

Commonwealth of Kentucky Finance and Administration Cabinet  
Department for Facilities and Support Services  
Division of Engineering and Contract Administration  
403 Wapping Street, 1<sup>st</sup> Floor  
Frankfort, Kentucky 40601

Attention: Mr. Frank Phillips, P.E., CEM

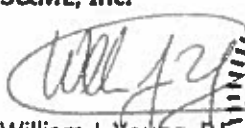
Reference: **Report of Preliminary Geotechnical Services**  
**Bluegrass Station Building 198**  
Lexington, Kentucky  
S&ME Project No. 1183-17-020

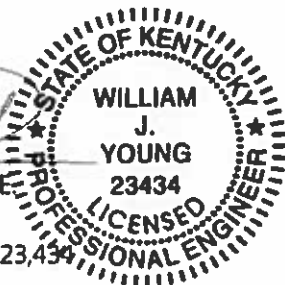
Dear Mr. Phillips:

S&ME, Inc. has completed the preliminary geotechnical exploration for the proposed Building 198 to be constructed at Bluegrass Station in Avon, Kentucky. The purpose of this exploration was to obtain general subsurface data to assist in project development and planning. A design phase (final) geotechnical exploration is required once the project planning and development is more complete. We conducted this project in general accordance with S&ME Proposal No. 11-1700072 dated March 9, 2017 which was authorized by you. This report explains our understanding of the project, documents our findings, and presents our conclusions and geotechnical engineering considerations.

S&ME appreciates the opportunity to be of continued service to the Commonwealth of Kentucky and Bluegrass Station. We look forward to serving as your geotechnical engineering consultant through project completion. If you have any questions, please call.

Sincerely,  
S&ME, Inc.

  
William J. Young, P.E.  
Project Engineer  
Licensed Kentucky, 23,434



  
Craig S. Lee, P.E.  
Senior Engineer/Vice President



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Appendix II – Test Pit Logs

Appendix III – Laboratory Data Summary



## **1.0 INTRODUCTION**

S&ME, Inc. has completed the preliminary geotechnical exploration for the proposed Building 198 to be constructed at Bluegrass Station in Avon, Kentucky. The purpose of this exploration was to obtain general subsurface data to assist in project development and planning. A design phase (final) geotechnical exploration is required once the project planning and development is more complete. We conducted this project in general accordance with S&ME Proposal No. 11-1700072 dated March 9, 2017 which was authorized by you. This report explains our understanding of the project, documents our findings, and presents our conclusions and geotechnical engineering considerations.

## **2.0 PROJECT AND SITE DESCRIPTION**

The project site is located at the Bluegrass Station in Avon, Kentucky. Please reference Figure 1 in Appendix A for details. The project area is predominantly a grass-covered field with some construction debris to the south of the proposed building footprint. Provided topographic information indicates that elevations across the planned building area range from about 994 feet on the west side to about 1009 feet on the east side.

The project will consist of the "design-build" construction of a warehouse style building (Building 198) and associated pavement areas. The building will be a pre-engineered metal building approximately 157 feet wide and 409 feet long (approximately 64,128 square feet) with a grade supported concrete floor slab. Proposed finished floor elevation for the building is 1006.5 feet. Structural loading and settlement criteria were not available at the time of this report.

## **3.0 SITE GEOLOGY**

The Geologic Map of the Clintonville Quadrangle, Kentucky, (GQ-717, 1968) published by the U.S. Geological Survey indicates the site is underlain by the Millersburg Member of the Lexington Limestone of the Ordovician Geologic Age. The Millersburg Member consists of limestone and shale, interbedded. Limestone (50 percent) is medium to dark gray, argillaceous, micro-grained, and occurs in thin beds with flat bedding planes. The shale is medium to dark gray, thin bedded to laminated, and weathers to yellowish clay soil. The results of our exploration confirm the geologic mapping for this area.

All areas underlain by potentially soluble rock (i.e. – limestone or dolomite) are at some risk due to sinkhole activity. No obvious sinkholes or closed depressions were observed on the site; however, portions of the site have been regraded. Thus, any surface evidence of solution activity may have been filled or destroyed during site grading in these areas. The Lexington Limestone is prone to differential weathering and solutioning. The result is an erratic top of rock profile with open fractures, cavities, and channels in the bedrock. Most of the Members of the Lexington Limestone are prone to form sinkholes. However, the Millersburg Member is not known to be sinkhole prone.

No obvious sinkholes were noted on the USGS topographic map or the USGS geologic map within one mile of the site. While the Kentucky Geological Survey (KGS) defines this area of Fayette County as having a high potential for Karst activity, our experience with the Millersburg Member indicates that sinkhole activity is not a major concern, but some localized solutioning and crevices can be expected. As such, we



believe there is a moderate risk associated with Karst activity at this site. The southwest-northeast trending Bryan Station Fault Zone lies about 3 miles to the northwest of this site.

Regional dip in the area is to the northwest at less than one percent. The significance of the regional dip is that the dip generally corresponds to the direction of subsurface water flow.

## **4.0 EXPLORATION METHODS**

The procedures used by S&ME for field and laboratory sampling and testing are in general accordance with ASTM procedures and established engineering practice. Appendix II contains brief descriptions of the drilling and sampling procedures used in this exploration.

### **4.1 Field Exploration**

A total of six (6) soil test borings were advanced for this exploration. The building corners were staked by Advance Engineering and Surveying prior to our exploration. Borings B-3, B-4, and B-6 were located at the building corners. Borings B-2 and B-5 were located in the field by estimating angles and taping distances from the building corner stakes. Boring B-1 was located in the tree/brush line and was offset from the building corner location. As such, the boring locations shown on Figure 2 should be considered approximate. The top of boring elevations were interpolated to the nearest one foot from the provided site topographic plan.

The borings were advanced using a track-mounted Diedrich D-50 drill rig using 6 7/8 inch O.D. hollow-stem augers. The drillers obtained soil samples in the soil test borings using a split-barrel sampler driven by an automatic hammer system in general accordance with ASTM D1586. Rock coring was beyond the scope of this preliminary exploration. The stratification lines shown on the Test Boring Records represent the approximate boundaries between soil and/or rock surfaces. The transitions may be more gradual than shown.

### **4.2 Laboratory Testing**

The S&ME staff professional sealed and returned the soil samples to our laboratory where they assigned the applicable laboratory tests. These tests are used to determine the engineering properties of the soil. The soil samples were visually classified by the engineer in general accordance with the Unified Soil Classification System (ASTM D2487) during the field exploration.

We performed natural moisture content and Atterberg Limits tests on three representative soil samples from the borings. Atterberg Limits testing indicated Liquid Limits (LL) of 49 to 76 percent with Plasticity Indices (PI) of 27 to 47 percent classifying the tested samples as low plasticity (lean) clay (CL). The natural moisture content tests ranged from approximately 17 to 32 percent. The obtained laboratory data and descriptions of these tests are included in Appendix III.

Unconfined compressive strength tests were performed on two samples obtained from relatively undisturbed (Shelby) tube samples recovered during the field exploration. The results of the unconfined compressive strength testing are summarized in Table No. 1:

**Table No. 1 – Unconfined Compressive Strength Testing**

Boring	Soil Description	USCS Classification	Unconfined Compressive Strength
B-1	Fat Brown Clay	CH	4,586
B-5	Fat Brown Clay	CH	4,567

## 5.0 SUBSURFACE CONDITIONS

### 5.1 General Soil Profile

The borings were drilled through existing grass areas and encountered approximately six to ten inches of topsoil. Beneath the existing topsoil, predominantly high plasticity residual clay was encountered in each of the borings. The sample that classified as lean clay (CL) in boring B-3 is within one percent of the Liquid Limit criterion for being classified as high plasticity (fat) clay and will, in our judgment, behave as such. The borings encountered auger refusal between depths of 5.0 and 10.5 feet. The consistency of these soils varied from firm to very stiff. Natural moisture contents of the high plasticity (fat) clay (CH) averaged about 26 percent. Atterberg limits tests of the lean clay at boring B-3 indicated a liquid limit range of 49 percent with a plasticity index of 27 percent. Atterberg limits tests of the fat clay indicated a liquid limit range of 72 to 76 percent with a plasticity index range of 46 to 47 percent. Our borings were terminated upon auger refusal, which we interpreted as bedrock.

Please refer to the Test Boring Records in Appendix II for details.

### 5.2 Groundwater

The borings were dry upon completion of drilling. The borings were backfilled with auger cuttings after the completion of drilling. As such, 24-hour water levels were not measured. Management of both surface and subsurface water will be a key issue to development of this site. Please refer to the following section of this report for additional details and recommendations regarding water management.

## 6.0 GEOTECHNICAL CONSIDERATIONS

We identified the following key issues that may impact the development of the site:

### 6.1 Grading and Site Selection

Site grading plans were not available at the time of this report. As such, we do not know the extent or magnitude of grading planned. We were provided a concept drawing with a proposed Finished Floor Elevation (FFE) of 1006.50. The depth to rock in the explored areas ranged from about 5.0 to 10.5 feet below existing grades.



The site grading plan should take into account the following:

- Provided drawings indicate a FFE of 1006.50, and existing site grades ranging from 984 to 1009 feet. As such, we expect cut depths up to five feet and fill depths up to two and one half feet to achieve the desired grades.
- The encountered bedrock elevations in our borings trend upward from west to east. Based on the concept drawing FFE of 1006.50 bedrock may be encountered in utility excavation to the east of the building.

## **6.2 High Plasticity Soils**

Visual identification of samples and Atterberg limits testing performed during this preliminary exploration indicate that the soil is comprised predominantly of high plasticity fat clay (CH). Soils with plasticity indices greater than 35 percent have a high risk of experiencing shrink or swell with changes in moisture content. Lightly loaded structural elements such as slabs-on-grade, sidewalks, pavement areas and non-load bearing walls are most susceptible to damage from shrinking and swelling soils. The final geotechnical exploration should include additional plasticity testing and swell testing to further define the engineering properties of the soil, and to assess the magnitude that the fat clay will impact development prior to implementing costly procedures to mitigate the plasticity issue.

## **6.3 Construction Accessibility / Site Degradation**

Based on our on-site observations and our past experience with similar soil conditions, construction accessibility will be problematic if attempted during cold/wet seasons of the year. Construction accessibility should be better during the hot/drier months of the year. During the wet periods, a construction road or pad consisting of a geo-textile fabric overlain by gravel may be required. Soft and/or wet areas may require selective undercutting, repair after construction is completed, or other treatment as recommended by the geotechnical engineer. We recommend that this site be graded and developed during warm, dry months of the year.

## **6.4 Water Management**

Management of both surface and subsurface water will be a key issue to development of this site. We anticipate that the low lying areas will be the most problematic with respect to water. Subsurface water will always tend to migrate toward the low lying areas, even after the site grading has been performed. Phase the earthwork such that the low lying areas are stabilized and are able to convey water away from the site while maintaining the integrity of the site.

## **6.5 Use of On-site Soils**

We define acceptable structural soil fill as inorganic natural soil with maximum particles sizes of 3 inches, a plasticity index of 30 or less, and maximum dry density of at least 100 pounds per cubic foot (pcf) when tested by the standard Proctor method (ASTM D698).

Our work scope did not include standard Proctor testing. However, correlations between the Optimum Moisture Content (OMC) obtained from standard Proctor testing and the soils Plastic Limit (PL) indicate



soils in Central Kentucky are typically within two to three percent of each other. Based on the Atterberg Limits testing and Natural Moisture Content of the tested samples from our May 19, 2017 exploration, we do not anticipate that moisture conditioning (wetting or drying) will be required. If grading occurs during either wetter or dryer periods of the year, moisture conditioning may be required.

The results of our preliminary exploration indicate that some of the encountered fat clay (CH) soils do not meet the plasticity criteria for structural soil fill. Additional testing of both the plasticity and swell testing should be performed during the design phase exploration. If the testing indicates the fat clay is problematic, we will recommend that soils with a plasticity index greater than 30 percent be kept at least three feet below subgrade under buildings and sidewalks adjacent to the buildings. The fat clays may be used in subgrade elevations in lawn and parking lot (not concrete) areas, and deeper than three feet below subgrade in the building pad.

During the geotechnical design phase, standard Proctor testing and Atterberg limits testing of potential fill soils (on-site and/or off-site) should be performed by S&ME before they are used as fill material. If off-site fill is imported, we recommend that the proposed borrow soil be tested prior to transporting it to the site. Please realize that the laboratory conformance testing usually takes three to four business days to complete.

## 6.6 Foundations and Floor Slabs

We anticipate conventional spread footings bearing on the firm or better soils or newly placed and compacted structural soil fill may be used for the proposed structures.

## 6.7 Future Studies

The above items warrant further attention and should be addressed on a more detailed design phase exploration program. Additionally, the design phase geotechnical exploration should address the following, at a minimum:

- Soil test borings within the proposed building footprint to develop foundation and floor slab (where slab-on-grade floors are planned) design recommendations.
- Standard Proctor tests of proposed fill soil.
- CBR tests for asphalt/concrete roadway construction.
- If some areas will receive more than six feet of new soil fill, the design phase geotechnical exploration should include detailed settlement studies.
- Additional plasticity testing and swell testing should be performed to define the potential impact of expansive clays prior to excluding their use within the top three feet.

We anticipate a site seismic classification of "C" based on our limited borings. It is possible that a site specific seismic evaluation would allow for a less conservative structural design and realized construction cost savings.



Generally, there should be a more concentrated spread of borings for buildings, and at least one boring per 10,000 to 15,000 square feet of parking areas. The number and depth of borings will vary for each proposed structure depending on its size, type, and proposed use.

## 7.0 FOLLOW UP SERVICES

**This report is preliminary and is not intended for final design purposes. Additional geotechnical work will be required once specific building location, type, and grades have been established.**

## 8.0 LIMITATIONS

This report has been prepared for the exclusive use of the Commonwealth of Kentucky for specific application to this project site. Our conclusions and recommendations have been prepared using generally accepted standards of geotechnical engineering practice in the Commonwealth of Kentucky. No other warranty is expressed or implied. This company is not responsible for the conclusions, opinions, or recommendations of others based on these data.

Our conclusions and recommendations are based on the design information furnished to us, the data obtained from the previously described preliminary geotechnical exploration, and our past experience. They do not reflect variations in the subsurface conditions that are likely to exist between our borings and in unexplored areas of the site. These variations result from the inherent variability of the general subsurface conditions in this geologic region.

We recommend that the Owner retain S&ME to continue our involvement in the project through the subsequent phases of design and construction. Our firm is not responsible for interpretation of the data contained in this report by others.

# Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

## Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

## Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by:* the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

## Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

## A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Constructors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.*

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely. Ask questions. Your geotechnical engineer should respond fully and frankly.*

### **Environmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

### **Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance**

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBC-Member geotechnical engineer for more information.



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## **Appendix I– Site Location Plan / Boring Location Plan**



SCALE: 1" = 2000'

DATE: 6/9/2016

DRAWN BY: LHR

PROJECT NO: 1183-17-020



WWW.SMEINC.COM  
2020 LIBERTY ROAD, SUITE 105  
LEXINGTON, KENTUCKY 40505  
PHONE: 859-293-5518

VICINITY MAP  
BLUEGRASS STATION  
BUILDING 198  
AVON, FAYETTE COUNTY, KENTUCKY

FIGURE NO.

1

ALL SHALES AND DITCHES SHOWN HEREON ARE  
 LOCATED LOCATE AND SIZE ALL DRAINAGE  
 IN THE 100 YEAR FLOOD WITHOUT SURROUNDING  
 DITCHES/DITCHES

PROPOSED BUILDING MAY BE OBTAINED FROM THE  
 ON OR AS APPROVED BY BLUEGRASS STATION.

USE FOR THIS PROJECT WILL BE BY OTHERS AND  
 CONTRACT.

THE PROJECTOR SHALL BE RESPONSIBLE FOR STOPPING  
 INCLUDING THE REMOVAL OF EXISTING CONCRETE  
 AND ANY OTHER DEBRIS FROM THE PROJECT SITE.  
 WORK WILL BE REMOVED BY OTHERS AND IS NOT  
 PART.

AT HANDLING/STORAGE, COMPASS ROSE, ETC. WILL  
 NOT PART OF THIS CONTRACT.

AFTER IS REQUIRED ON THIS PROJECT.

IT WILL BE DIRECTED TO THE EXISTING POND. THIS  
 DETENTION BASIN. NO ADDITIONAL DETENTION IS REQUIRED.

AREA SHALL HAVE A 42" BUCK HEIGHT.

EVALUATE THE POSSIBILITY OF DAYLIGHTING THE CUT  
 BUILDING HELIPAD AND APPROX IN ORDER TO  
 STORM SEWER SYSTEM.

10010	10011	10012	10013	10014	10015	10016	10017	10018	10019	10020	10021	10022	10023	10024	10025	10026	10027	10028	10029	10030	10031	10032	10033	10034	10035	10036	10037	10038	10039	10040	10041	10042	10043	10044	10045	10046	10047	10048	10049	10050	10051	10052	10053	10054	10055	10056	10057	10058	10059	10060	10061	10062	10063	10064	10065	10066	10067	10068	10069	10070	10071	10072	10073	10074	10075	10076	10077	10078	10079	10080	10081	10082	10083	10084	10085	10086	10087	10088	10089	10090	10091	10092	10093	10094	10095	10096	10097	10098	10099	10100	10101	10102	10103	10104	10105	10106	10107	10108	10109	10110	10111	10112	10113	10114	10115	10116	10117	10118	10119	10120	10121	10122	10123	10124	10125	10126	10127	10128	10129	10130	10131	10132	10133	10134	10135	10136	10137	10138	10139	10140	10141	10142	10143	10144	10145	10146	10147	10148	10149	10150	10151	10152	10153	10154	10155	10156	10157	10158	10159	10160	10161	10162	10163	10164	10165	10166	10167	10168	10169	10170	10171	10172	10173	10174	10175	10176	10177	10178	10179	10180	10181	10182	10183	10184	10185	10186	10187	10188	10189	10190	10191	10192	10193	10194	10195	10196	10197	10198	10199	10200	10201	10202	10203	10204	10205	10206	10207	10208	10209	10210	10211	10212	10213	10214	10215	10216	10217	10218	10219	10220	10221	10222	10223	10224	10225	10226	10227	10228	10229	10230	10231	10232	10233	10234	10235	10236	10237	10238	10239	10240	10241	10242	10243	10244	10245	10246	10247	10248	10249	10250	10251	10252	10253	10254	10255	10256	10257	10258	10259	10260	10261	10262	10263	10264	10265	10266	10267	10268	10269	10270	10271	10272	10273	10274	10275	10276	10277	10278	10279	10280	10281	10282	10283	10284	10285	10286	10287	10288	10289	10290	10291	10292	10293	10294	10295	10296	10297	10298	10299	10300	10301	10302	10303	10304	10305	10306	10307	10308	10309	10310	10311	10312	10313	10314	10315	10316	10317	10318	10319	10320	10321	10322	10323	10324	10325	10326	10327	10328	10329	10330	10331	10332	10333	10334	10335	10336	10337	10338	10339	10340	10341	10342	10343	10344	10345	10346	10347	10348	10349	10350	10351	10352	10353	10354	10355	10356	10357	10358	10359	10360	10361	10362	10363	10364	10365	10366	10367	10368	10369	10370	10371	10372	10373	10374	10375	10376	10377	10378	10379	10380	10381	10382	10383	10384	10385	10386	10387	10388	10389	10390	10391	10392	10393	10394	10395	10396	10397	10398	10399	10400	10401	10402	10403	10404	10405	10406	10407	10408	10409	10410	10411	10412	10413	10414	10415	10416	10417	10418	10419	10420	10421	10422	10423	10424	10425	10426	10427	10428	10429	10430	10431	10432	10433	10434	10435	10436	10437	10438	10439	10440	10441	10442	10443	10444	10445	10446	10447	10448	10449	10450	10451	10452	10453	10454	10455	10456	10457	10458	10459	10460	10461	10462	10463	10464	10465	10466	10467	10468	10469	10470	10471	10472	10473	10474	10475	10476	10477	10478	10479	10480	10481	10482	10483	10484	10485	10486	10487	10488	10489	10490	10491	10492	10493	10494	10495	10496	10497	10498	10499	10500	10501	10502	10503	10504	10505	10506	10507	10508	10509	10510	10511	10512	10513	10514	10515	10516	10517	10518	10519	10520	10521	10522	10523	10524	10525	10526	10527	10528	10529	10530	10531	10532	10533	10534	10535	10536	10537	10538	10539	10540	10541	10542	10543	10544	10545	10546	10547	10548	10549	10550	10551	10552	10553	10554	10555	10556	10557	10558	10559	10560	10561	10562	10563	10564	10565	10566	10567	10568	10569	10570	10571	10572	10573	10574	10575	10576	10577	10578	10579	10580	10581	10582	10583	10584	10585	10586	10587	10588	10589	10590	10591	10592	10593	10594	10595	10596	10597	10598	10599	10600	10601	10602	10603	10604	10605	10606	10607	10608	10609	10610	10611	10612	10613	10614	10615	10616	10617	10618	10619	10620	10621	10622	10623	10624	10625	10626	10627	10628	10629	10630	10631	10632	10633	10634	10635	10636	10637	10638	10639	10640	10641	10642	10643	10644	10645	10646	10647	10648	10649	10650	10651	10652	10653	10654	10655	10656	10657	10658	10659	10660	10661	10662	10663	10664	10665	10666	10667	10668	10669	10670	10671	10672	10673	10674	10675	10676	10677	10678	10679	10680	10681	10682	10683	10684	10685	10686	10687	10688	10689	10690	10691	10692	10693	10694	10695	10696	10697	10698	10699	10700	10701	10702	10703	10704	10705	10706	10707	10708	10709	10710	10711	10712	10713	10714	10715	10716	10717	10718	10719	10720	10721	10722	10723	10724	10725	10726	10727	10728	10729	10730	10731	10732	10733	10734	10735	10736	10737	10738	10739	10740	10741	10742	10743	10744	10745	10746	10747	10748	10749	10750	10751	10752	10753	10754	10755	10756	10757	10758	10759	10760	10761	10762	10763	10764	10765	10766	10767	10768	10769	10770	10771	10772	10773	10774	10775	10776	10777	10778	10779	10780	10781	10782	10783	10784	10785	10786	10787	10788	10789	10790	10791	10792	10793	10794	10795	10796	10797	10798	10799	10800	10801	10802	10803	10804	10805	10806	10807	10808	10809	10810	10811	10812	10813	10814	10815	10816	10817	10818	10819	10820	10821	10822	10823	10824	10825	10826	10827	10828	10829	10830	10831	10832	10833	10834	10835	10836	10837	10838	10839	10840	10841	10842	10843	10844	10845	10846	10847	10848	10849	10850	10851	10852	10853	10854	10855	10856	10857	10858	10859	10860	10861	10862	10863	10864	10865	10866	10867	10868	10869	10870	10871	10872	10873	10874	10875	10876	10877	10878	10879	10880	10881	10882	10883	10884	10885	10886	10887	10888	10889	10890	10891	10892	10893	10894	10895	10896	10897	10898	10899	10900	10901	10902	10903	10904	10905	10906	10907	10908	10909	10910	10911	10912	10913	10914	10915	10916	10917	10918	10919	10920	10921	10922	10923	10924	10925	10926	10927	10928	10929	10930	10931	10932	10933	10934	10935	10936	10937	10938	10939	10940	10941	10942	10943	10944	10945	10946	10947	10948	10949	10950	10951	10952	10953	10954	10955	10956	10957	10958	10959	10960	10961	10962	10963	10964	10965	10966	10967	10968	10969	10970	10971	10972	10973	10974	10975	10976	10977	10978	10979	10980	10981	10982	10983	10984	10985	10986	10987	10988	10989	10990	10991	10992	10993	10994	10995	10996	10997	10998	10999	11000	11001	11002	11003	11004	11005	11006	11007	11008	11009	11010	11011	11012	11013	11014	11015	11016	11017	11018	11019	11020	11021	11022	11023	11024	11025	11026	11027	11028	11029	11030	11031	11032	11033	11034	11035	11036	11037	11038	11039	11040	11041	11042	11043	11044	11045	11046	11047	11048	11049	11050	11051	11052	11053	11054	11055	11056	11057	11058	11059	11060	11061	11062	11063	11064	11065	11066	11067	11068	11069	11070	11071	11072	11073	11074	11075	11076	11077	11078	11079	11080	11081	11082	11083	11084	11085	11086	11087	11088	11089	11090	11091	11092	11093	11094	11095	11096	11097	11098	11099	11100	11101	11102	11103	11104	11105	11106	11107	11108	11109	11110	11111	11112	11113	11114	11115	11116	11117	11118	11119	11120	11121	11122	11123	11124	11125	11126	11127	11128	11129	11130	11131	11132	11133	11134	11135	11136	11137	11138	11139	11140	11141	11142	11143	11144	11145	11146	11147	11148	11149	11150	11151	11152	11153	11154	11155	11156	11157	11158	11159	11160	11161	11162	11163	11164	11165	11166	11167	11168	11169	11170	11171	11172	11173	11174	11175	11176	11177	11178	11179	11180	11181	11182	11183	11184	11185	11186	11187	11188	11189	11190	11191	11192	11193	11194	11195	11196	11197	11198	11199	11200	11201	11202	11203	11204	11205	11206	11207	11208	11209	11210	11211	11212	11213	11214	11215	11216	11217	11218	11219	11220	11221	11222	11223	11224	11225	11226	11227	11228	11229	11230	11231	11232	11233	11234	11235	11236	11237	11238	11239	11240	11241	11242	11243	11244	11245	11246	11247
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## **Appendix II – Test Boring Records**

# TEST BORING RECORD LEGEND

## FINE AND COARSE GRAINED SOIL INFORMATION

COARSE GRAINED SOILS (SANDS & GRAVELS)		FINE GRAINED SOILS (SILTS & CLAYS)			PARTICLE SIZE	
N	Relative Density	N	Consistency	Qu, KSF Estimated		
0-4	Very Loose	0-1	Very Soft	0-0.5	Boulders	Greater than 300 mm (12 in)
5-10	Loose	2-4	Soft	0.5-1	Cobbles	75 mm to 300 mm (3 to 12 in)
11-20	Firm	5-8	Firm	1-2	Gravel	4.74 mm to 75 mm (3/16 to 3 in)
21-30	Very Firm	9-15	Stiff	2-4	Coarse Sand	2 mm to 4.75 mm
31-50	Dense	16-30	Very Stiff	4-8	Medium Sand	0.425 mm to 2 mm
Over 50	Very Dense	Over 31	Hard	8+	Fine Sand	0.075 mm to 0.425 mm
					Silts & Clays	Less than 0.075 mm

The STANDARD PENETRATION TEST as defined by ASTM D 1586 is a method to obtain a disturbed soil sample for examination and testing and to obtain relative density and consistency information. A standard 1.4-inch I.D./2-inch O.D. split-barrel sampler is driven three 6-inch increments with a 140 lb. hammer falling 30 inches. The hammer can either be of a trip, free-fall design, or actuated by a rope and cathead. The blow counts required to drive the sampler the final two increments are added together and designate the N-value defined in the above tables.


































## ROCK PROPERTIES

ROCK QUALITY DESIGNATION (RQD)		ROCK HARDNESS	
Percent RQD	Quality		
0-25	Very Poor	Very Hard:	Rock can be broken by heavy hammer blows.
25-50	Poor	Hard:	Rock cannot be broken by thumb pressure, but can be broken by moderate hammer blows.
50-75	Fair	Moderately Hard:	Small pieces can be broken off along sharp edges by considerable hard thumb pressure; can be broken with light hammer blows.
75-90	Good	Soft:	Rock is coherent but breaks very easily with thumb pressure at sharp edges and crumbles with firm hand pressure.
90-100	Excellent	Very Soft:	Rock disintegrates or easily compresses when touched; can be hard to very hard soil.

	<u>Length of Rock Core Recovered</u>	X100		<u>Core Diameter</u>	<u>Inches</u>
Recovery =	Length of Core Run		63 REC	BQ	1-7/16
		NQ	NQ	1-7/8	
		43 RQD	HQ	2-1/2	
RQD =	<u>Sum of 4 in. and longer Rock Pieces Recovered</u>	X100			
	Length of Core Run				

## SYMBOLS








### KEY TO MATERIAL TYPES

 Topsoil	 High Plasticity Inorganic Silt or Clay	 Peat	 Amphibolite
 Asphalt	 Organic Silts/Clays	 Limestone	 Metagraywacke
 Crushed Limestone	 Well-Graded Gravel	 Sandstone	 Phyllite
 Fill Material	 Poorly-Graded Gravel	 Siltstone	
 Shot-rock Fill	 Silty Gravel	 Claystone	
 Low Plasticity Inorganic Silt	 Clayey Gravel	 Weathered Rock	
 High Plasticity Inorganic Silt	 Well-Graded Sand	 Dolomite	
 Low Plasticity Inorganic Clay	 Poorly-Graded Sand	 Granite	
 High Plasticity Inorganic Clay	 Silty Sand	 Gneiss	
 Low Plasticity Inorganic Silt or Clay	 Clayey Sand	 Schist	

### SOIL PROPERTY SYMBOLS

N:	Standard Penetration, BPF
M:	Moisture Content, %
LL:	Liquid Limit, %
PI:	Plasticity Index, %
Qp:	Pocket Penetrometer Value, TSF
Qu:	Unconfined Compressive Strength Estimated Qu, TSF
γ <sub>D</sub> :	Dry Unit Weight, PCF
F:	Fines Content

### SAMPLING SYMBOLS

 Undisturbed Sample	 No Sample Recovery
 Split-Spoon Sample	 Water Level After Drilling
 Rock Core Sample	 Extended Time Reading
 Auger or Bag Sample	



# TEST BORING RECORD

BORING NO: **B-1**

PROJECT: Building 198 Bluegrass Station		JOB NO: 1183-17-020	REPORT NO:
PROJECT LOCATION: Lexington, KY			
ELEVATION: 996.0	BORING STARTED: 5/19/2017		BORING COMPLETED: 5/19/2017
DRILLING METHOD: 4" HSA	RIG TYPE: D-50		HAMMER: Automatic
GROUNDWATER (ft): Dry upon completion of soil augering		BORING DIAMETER (IN): 4	SHEET 1 OF 1

Remarks: Elevations interpolated from provided topographic mapping to nearest whole foot

Groundwater	ELEV. (FT.)	DEPTH (FT.)	MATERIAL DESCRIPTION	Lithology	Sample Type	Recovery (in)	RQD (%)	Qu	STANDARD PENETRATION RESISTANCE (N)	BLOWS /6"	
									01020304060		
	996	0	Topsoil 10 inches					4,586			
	995.1		Fat clay (CH), with black oxide nodules, FIRM, brown, moist			18					3 - 4 - 4
	994.5		Fat clay (CH), with black oxide nodules, STIFF to VERY STIFF, brown with gray mottling, moist			24					
		5				18					4 - 4 - 6
	990.5		Fat clay (CH), with black oxide nodules, with rock fragments, STIFF to VERY STIFF, brown with gray mottling, moist			18					4 - 9 - 10
	987.2		Auger refusal encountered at 8.8 feet			3				50/3	
		10									
		15									
		20									

CRAIG2 1183-17-020 BLDG 198 BLUEGRASS STATION.GPJ QOR\_CORP.GDT 6/13/17







# TEST BORING RECORD

BORING NO: **B-2**

PROJECT: Building 198 Bluegrass Station			JOB NO: 1183-17-020	REPORT NO:
PROJECT LOCATION: Lexington, KY				
ELEVATION: 1,003.0		BORING STARTED: 5/19/2017		BORING COMPLETED: 5/19/2017
DRILLING METHOD: 4" HSA		RIG TYPE: D-50		HAMMER: Automatic
GROUNDWATER (ft): Dry upon completion of soil augering			BORING DIAMETER (IN): 4	SHEET 1 OF 1

Remarks: Elevations interpolated from provided topographic mapping to nearest whole foot

Groundwater	ELEV. (FT.)	DEPTH (FT.)	MATERIAL DESCRIPTION	Lithology	Sample Type	Recovery (in)	RQD (%)	Qu	STANDARD PENETRATION RESISTANCE (N)						BLOWS /6"
									0	10	20	30	40	50	
	1003	0	Topsoil 8 inches												
	1002.3		Fat clay (CH), with black oxide nodules, STIFF to FIRM, light brown with gray mottling, moist			16									4 - 6 - 7
						12									3 - 3 - 4
						8									3 - 50/2
	998.0	5	Auger refusal encountered at 5.0 feet												
		10													
		15													
		20													

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# TEST BORING RECORD

BORING NO: **B-3**

PROJECT: Building 198 Bluegrass Station		JOB NO: 1183-17-020	REPORT NO:
PROJECT LOCATION: Lexington, KY			
ELEVATION: 1,009.0	BORING STARTED: 5/19/2017		BORING COMPLETED: 5/19/2017
DRILLING METHOD: 4" HSA	RIG TYPE: D-50		HAMMER: Automatic
GROUNDWATER (ft): Dry upon completion of soil augering		BORING DIAMETER (IN): 4	SHEET 1 OF 1
Remarks: Elevations interpolated from provided topographic mapping to nearest whole foot			

Groundwater	ELEV. (FT.)	DEPTH (FT.)	MATERIAL DESCRIPTION	Lithology	Sample Type	Recovery (in)	RQD (%)	Qu	STANDARD PENETRATION RESISTANCE (N)	BLOWS /6"
	1009	0	Topsoil 8 inches							
	1008.3		Lean clay (CL), with black oxide nodules, STIFF, brown, moist			18				4 - 5 - 5
						14				4 - 5 - 9
	1005.5		Fat clay (CH), with black oxide nodules, STIFF to VERY STIFF, light brown, moist			16				6 - 7 - 7
		5				17				3 - 6 - 9
	1001.3		Auger refusal encountered at 7.7 feet							
		10								
		15								
		20								

CRAIG2\_1183-17-020 BLDG 198 BLUEGRASS STATION.GPJ OOR CORP.GDT 6/13/17



# TEST BORING RECORD

BORING NO: **B-4**

PROJECT: Building 198 Bluegrass Station		JOB NO: 1183-17-020	REPORT NO:
PROJECT LOCATION: Lexington, KY			
ELEVATION: 994.0	BORING STARTED: 5/19/2017		BORING COMPLETED: 5/19/2017
DRILLING METHOD: 4" HSA	RIG TYPE: D-50		HAMMER: Automatic
GROUNDWATER (ft): Dry upon completion of soil augering		BORING DIAMETER (IN): 4	SHEET 1 OF 1
Remarks: Elevations interpolated from provided topographic mapping to nearest whole foot			

Groundwater	ELEV. (FT.)	DEPTH (FT.)	MATERIAL DESCRIPTION	Lithology	Sample Type	Recovery (in)	RQD (%)	Qu	STANDARD PENETRATION RESISTANCE (N)	BLOWS /6"
	994	0	Topsoil 6 inches							
	993.5		Fat clay (CH), with black oxide nodules, FIRM to STIFF, light brown with gray mottling, moist			15				2 - 3 - 4
						10				4 - 4 - 5
						18				4 - 7 - 7
	988.5	5	Weathered limestone			5				50/5
						0				50/3
	983.5	10	Auger refusal encountered at 10.5 feet							
		15								
		20								






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# TEST BORING RECORD

BORING NO: **B-5**

PROJECT: Building 198 Bluegrass Station		JOB NO: 1183-17-020	REPORT NO:
PROJECT LOCATION: Lexington, KY			
ELEVATION: 1,005.0	BORING STARTED: 5/19/2017		BORING COMPLETED: 5/19/2017
DRILLING METHOD: 4" HSA	RIG TYPE: D-50		HAMMER: Automatic
GROUNDWATER (ft): Dry upon completion of soil augering		BORING DIAMETER (IN): 4	SHEET 1 OF 1
Remarks: Elevations interpolated from provided topographic mapping to nearest whole foot			

Groundwater	ELEV. (FT.)	DEPTH (FT.)	MATERIAL DESCRIPTION	Lithology	Sample Type	Recovery (in)	RQD (%)	Qu	STANDARD PENETRATION RESISTANCE (N)					BLOWS /6"	
									0	10	20	30	40	50	
	1005.0	0	Topsoil 9 inches												
	1004.3		Fat clay (CH), with black oxide nodules, STIFF, brown, moist			18									4 - 5 - 7
	1003.0		Fat clay (CH), with black oxide nodules, STIFF, light brown with gray mottling			24		4,567							
		5				12									3 - 6 - 7
	998.6		Weathered limestone			5									50/5
	998.0		Auger refusal encountered at 7.0 feet												
		10													
		15													
		20													

CRAIG2\_1183-17-020 BLDG 198 BLUEGRASS STATION.GPJ OOR CORP.GDT 6/13/17



# TEST BORING RECORD

BORING NO: **B-6**

PROJECT: Building 198 Bluegrass Station		JOB NO: 1183-17-020	REPORT NO:
PROJECT LOCATION: Lexington, KY			
ELEVATION: 1,006.0	BORING STARTED: 5/19/2017		BORING COMPLETED: 5/19/2017
DRILLING METHOD: 4" HSA	RIG TYPE: D-50		HAMMER: Automatic
GROUNDWATER (ft): Dry upon completion of soil augering		BORING DIAMETER (IN): 4	SHEET 1 OF 1
Remarks: Elevations interpolated from provided topographic mapping to nearest whole foot			

Groundwater	ELEV. (FT.)	DEPTH (FT.)	MATERIAL DESCRIPTION	Lithology	Sample Type	Recovery (in)	RQD (%)	Qu	STANDARD PENETRATION RESISTANCE (N)	BLOWS /6"
									0 10 20 30 40 50	
	1006	0	Topsoil 6 inches							
	1005.5		FILL - Lean clay (CL), with black oxide nodules, STIFF, brown moist			18				3 - 4 - 5
	1004.2		FILL - Fat clay (CH), with black oxide nodules, STIFF, light brown, moist			14				6 - 7 - 8
	1003.0		FILL - Lean clay (CL), with possible buried topsoil, brick fragments, rock fragments, VERY STIFF, dark brown to brown, moist			18				6 - 6 - 9
	1001.8		Fat clay (CH), with black oxide nodules, VERY STIFF, light brown, moist							
		5								
	999.4		Auger refusal encountered at 6.6 feet			1				50/1
		10								
		15								
		20								

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## FIELD TESTING PROCEDURES

**Field Operations:** The general field procedures employed by S&ME, Inc. are summarized in ASTM D 420 which is entitled "Investigating and Sampling Soils and Rocks for Engineering Purposes." This recommended practice lists recognized methods for determining soil and rock distribution and ground water conditions. These methods include geophysical and in situ methods as well as borings.

Borings are drilled to obtain subsurface samples using one of several alternate techniques depending upon the subsurface conditions. These techniques are:

- a. Continuous 2-1/2 or 3-1/4 inch I.D. hollow stem augers;
- b. Wash borings using roller cone or drag bits (mud or water);
- c. Continuous flight augers (ASTM D 1425).

These drilling methods are not capable of penetrating through material designated as "refusal materials." Refusal, thus indicated, may result from hard cemented soil, soft weathered rock, coarse gravel or boulders, thin rock seams, or the upper surface of sound continuous rock. Core drilling procedures are required to determine the character and continuity of refusal materials.

The subsurface conditions encountered during drilling are reported on a field test boring record by a field engineer who is on site to direct the drilling operations and log the recovered samples. The record contains information concerning the boring method, samples attempted and recovered, indications of the presence of various materials such as coarse gravel, cobbles, etc., and observations between samples. Therefore, these boring records contain both factual and interpretive information. The field boring records are on file in our office.

The soil and rock samples plus the field boring records are reviewed by a geotechnical engineer. The engineer classifies the soils in general accordance with the procedures outlined in ASTM D 2488 and prepares the final boring records that are the basis for all evaluations and recommendations.

The final boring records represent our interpretation of the contents of the field records based on the results of the engineering examinations and tests of the field samples. These records depict subsurface conditions at the specific locations and at the particular time when drilled. Soil conditions at other locations may differ from conditions occurring at these boring locations. Also, the passage of time may result in a change in the subsurface soil and ground water conditions at these boring locations. The lines designating the interface between soil or refusal materials on the records and on profiles represent approximate boundaries. The transition between materials may be gradual. The final boring records are included with this report. The detailed data collection methods using during this study are discussed on the following pages.

**Soil Test Borings:** Soil test borings were made at the site at locations shown on the attached Boring Plan. Soil sampling and penetration testing were performed in accordance with ASTM D 1586.

The borings were made by mechanically twisting a 5-5/8" outer diameter auger into the soil. At regular intervals, the drilling tools were removed and samples obtained with a standard 1.4 inch I.D., 2 inch O.D., split tube sampler. The sampler was first seated 6 inches to penetrate any loose cuttings, then driven an additional foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot was recorded and is designated the "penetration resistance".

Representative portions of the samples, thus obtained, were placed in glass jars and transported to the laboratory. In the laboratory, the samples were examined to verify the driller's field classifications. Test Boring Records are attached which graphically show the soil descriptions and penetration resistances.

**Soil Auger Soundings:** Soil auger soundings were made at the site at the locations shown on the attached Boring Location Plan. The soundings were performed by mechanically twisting a steel auger into the soil. However, unlike the soil test borings, a smaller diameter solid stem auger was used and no split-spoon samples were obtained. The driller provided a general description of the soil encountered by observing the soils brought to the surface by the twisting auger. The auger was advanced until refusal materials were encountered and the refusal depth was noted by the driller. The auger is then withdrawn and the depths to water or caved materials are then measured and recorded by the driller.

Soil auger soundings provide a rapid, economical method of obtaining the approximate bedrock depth, groundwater depth, and general soil conditions at locations where detailed soil testing and sampling is not required.

**Water Level Readings:** Water table readings are normally taken in conjunction with borings and are recorded on the "Test Boring Records". These readings indicate the approximate location of the hydrostatic water table at the time of our field investigation. Where impervious soils are encountered (clayey soils) the amount of water seepage into the boring is small, and it is generally not possible to establish the location of the hydrostatic water table through water level readings. The ground water table may also be dependent upon the amount of precipitation at the site during a particular period of time. Fluctuations in the water table should be expected with variations in precipitation, surface run-off, evaporation and other factors.

The time of boring water level reported on the boring records is determined by field crews as the drilling tools are advanced. The time of boring water level is detected by changes in the drilling rate, soil samples obtained, etc. Additional water table readings are generally obtained at least 24 hours after the borings are completed. The time lag of at least 24 hours is used to permit stabilization of the ground water table which has been disrupted by the drilling operations. The readings are taken by dropping a weighted line down the boring or using an electrical probe to detect the water level surface. Occasionally the borings will cave-in, preventing water level readings from being obtained or trapping drilling water above the caved-in zone. The cave-in depth is also measured and recorded on the boring records.



## **Appendix III – Laboratory Data Summary**

Form No. TR-2370-LEX-SUM-1

Revision No. : 2

Revision Date: 01/04/17

## Lab Summary



S&amp;ME, Inc - Lexington 2020 Liberty Road, Suite 105, Lexington, KY 40505

Project No.: 1183-17-020

Report Date: 05/26/17

Project Name: Building 198 Bluegrass Station

Client Name: Finance and Administration (Kentucky)

Client Address: 403 Wapping Street, Frankfort, KY 40601

BORING NO.	SAMPLE DEPTH, FT.	SAMPLE TYPE	USCS	NATURAL MOISTURE CONTENT, %	ATT. LIMITS			APPROX % RET. ON #40	MAX DRY DENSITY, PCF @ OPT MC % (STD. PROCTOR)	WET UNIT WEIGHT, PCF	DRY UNIT WEIGHT, PCF	APPROX ROCK UNCONFINED COMPRESSIVE STRENGTH, PSI	SOIL UNCONFINED COMPRESSIVE STRENGTH, PSF	% FINER THAN NO. 200	INTERPOLATED AT 95% CBR, %
					L.L.	P.L.	P.I.								
B-1	0.0 - 1.5	SPT		21.5											
B-1	2.0 - 4.0	UD	CH	31.7	76	29	47	<5		121.3	92.1		4,586		
B-1	4.0 - 5.5	SPT		29.2											
B-1	6.0 - 7.5	SPT		25.5											
B-1	8.5 - 8.8	SPT		16.8											
B-2	0.0 - 1.5	SPT		27.1											
B-2	1.5 - 3.0	SPT		31.3											
B-2	3.5 - 4.2	SPT		27.8											
B-3	0.0 - 1.5	SPT		31.7											
B-3	1.5 - 3.0	SPT	CL	24.3	49	22	27	5							
B-3	3.5 - 5.0	SPT		29.5											
B-3	6.0 - 7.5	SPT		23.1											

Notes: \* = Gravel excluded, † = Gravel significant portion of sample and was included in MC. \*\*Gravelly material, low recovery, insufficient for mc test.

Chisa Puckett  
Technical Responsibility

  
Chisa Puckett
Senior Engineering Technician  
Position05/26/17  
Date

This report shall not be reproduced, except in full, without the written approval of S&amp;ME, Inc.

Form No. TR-2370-LEX-SUM-1

Revision No. : 2

Revision Date: 01/04/17

## Lab Summary



S&amp;ME, Inc - Lexington 2020 Liberty Road Suite 105, Lexington, KY 40505

Project No.: 1183-17-020

Report Date: 05/26/17

Project Name: Building 198 Bluegrass Station

Client Name: Finance and Administration (Kentucky)

Client Address: 403 Wapping Street, Frankfort, KY 40601

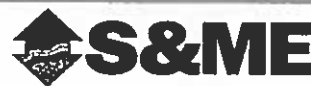
BORING NO.	SAMPLE DEPTH, FT.	SAMPLE TYPE	USCS	NATURAL MOISTURE CONTENT, %	ATT. LIMITS			APPROX % RET. ON #40	MAX DRY DENSITY, PCF @ OPT MC % (STD. PROCTOR)	WET UNIT WEIGHT, PCF	DRY UNIT WEIGHT, PCF	APPROX ROCK UNCONFINED COMPRESSIVE STRENGTH, PSI	SOIL UNCONFINED COMPRESSIVE STRENGTH, PSF	% FINER THAN NO 200	INTERPOLATED AT 95% CBR, %
					L.L.	P.L.	P.I.								
B-4	0.0 - 1.5	SPT		26.2											
B-4	1.5 - 3.0	SPT		30.6											
B-4	3.5 - 5.0	SPT		25.3 *											
B-4	6.0 - 6.4	SPT		17.7 *											
B-4	8.5 - 8.9	SPT		8.5 *											
B-5	0.0 - 1.5	SPT		20.1											
B-5	2.0 - 4.0	UD	CH	29.3	72	26	46	<5		123.5	95.5		4,567		
B-5	4.0 - 5.5	SPT		27.5											
B-5	6.0 - 6.4	SPT		30.0 *											
B-6	0.0 - 1.5	SPT		21.3											
B-6	1.5 - 3.0	SPT		23.5											
B-6	3.5 - 5.0	SPT		29.8 *											

Form No. TR-D2166-01

Revision No. : 0

Revision Date: 3/29/13

Client Report No: 1

**UNCONFINED COMPRESSIVE STRENGTH  
OF COHESIVE SOILS**

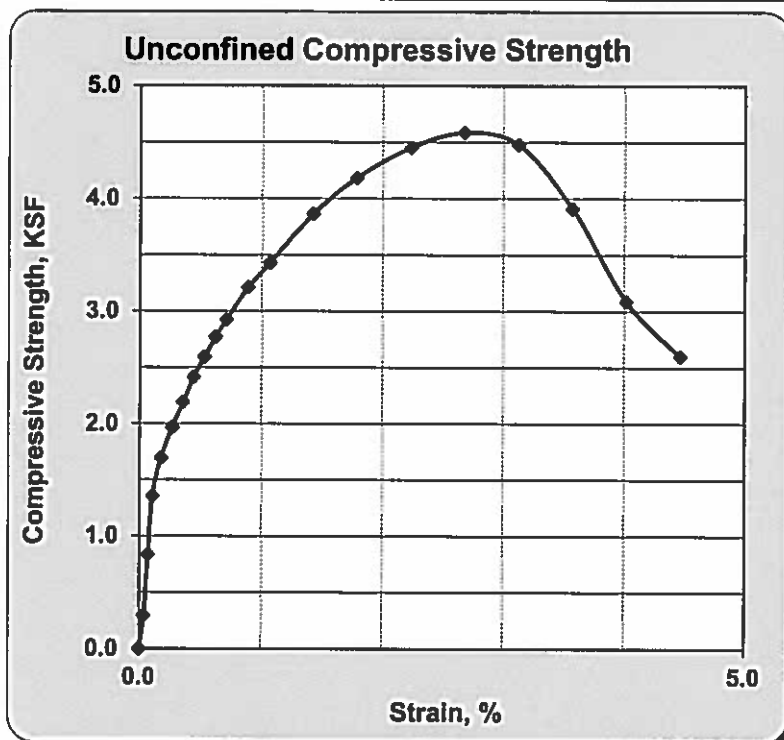
ASTM D2166

Quality Assurance

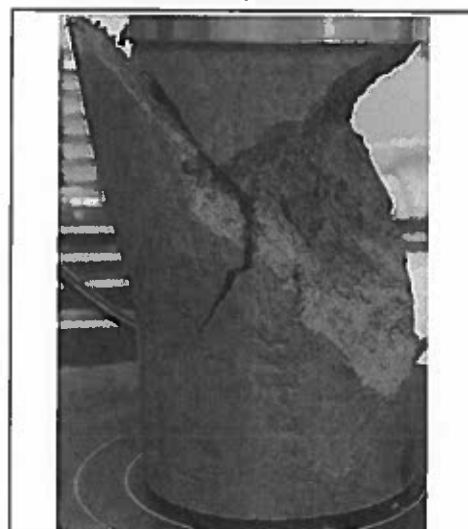
**S&ME, Inc - Lexington 2020 Liberty Road, Suite 105 Lexington, KY 40505**

Project No.:	1183-17-020	Report Date:	05/26/17
Project Name:	Building 198 Bluegrass Station	Test Date(s):	05/23/17
Client Name:	Finance and Administration (Kentucky)		
Client Address:	403 Wapping Street, Frankfort, KY 40601		
Location:	B-1	Depth (ft.):	3.4 - 3.9
		Sample Date:	05/19/17

Sample Description:	Yellowish brown Fat clay			CH	
Type and Specification	S&ME ID #	Cal Date:	Type and Specification	S&ME ID #	Cal Date:
Balance (0.01 gram)	23954	10/06/16			
Calipers (0.001 inches)	24319	05/21/16			
Load Frame	24004	02/01/17			



Failed Specimen



Type of Sample: UD  
 Source of Moisture Sample: 3/4 sample

Initial Dry Unit Weight: 92.1 pcf Initial Water Content: 31.7%  
 Unconfined Compressive Strength,  $q_u$ : 4.586 KSF  
 Undrained Shear Strength,  $s_u$ : 2.293 KSF

Liquid Limit: 76  
 Plasticity Index: 47  
 Height to Diameter Ratio: 2.0  
 Rate of Strain (%/m): 1.1  
 Strain at Failure: 2.7

References / Comments / Deviations:

Chisa Puckett  
 Technical Responsibility

May 26 2017 11:16 AM  
Chisa Puckett  
 CHISA PUCKETT

Senior Engineering Technician  
 Position

5/26/2017  
 Date

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Form No. TR-D2166-01

Revision No. : 0

Revision Date: 3/29/13

Client Report No: 1

**UNCONFINED COMPRESSIVE STRENGTH  
OF COHESIVE SOILS**

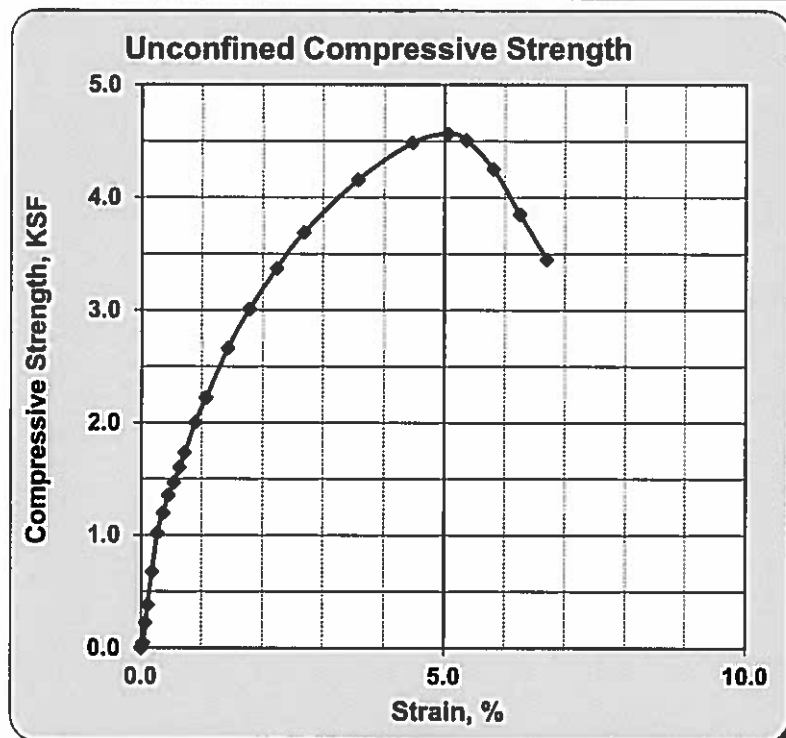
ASTM D2166

Quality Assurance

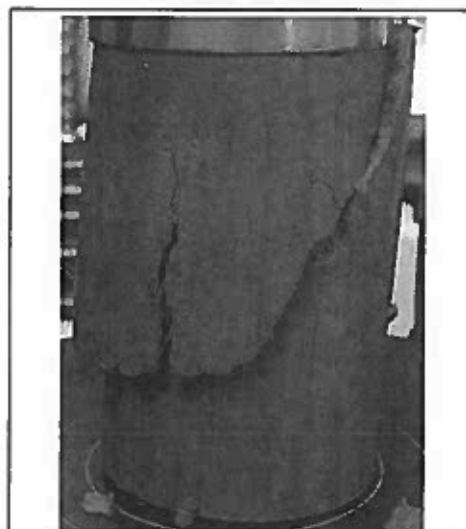
S&amp;ME, Inc - Lexington 2020 Liberty Road, Suite 105 Lexington, KY 40505

Project No.:	1183-17-020	Report Date:	05/26/17
Project Name:	Building 198 Bluegrass Station	Test Date(s):	05/23/17
Client Name:	Finance and Administration (Kentucky)		
Client Address:	403 Wapping Street, Frankfort, KY 40601		
Location:	B-5	Depth (ft.):	3.4 - 3.9
		Sample Date:	05/19/17

Sample Description:	Dark yellowish brown Fat clay				CH
Type and Specification	S&ME ID #	Cal Date:	Type and Specification	S&ME ID #	Cal Date:
Balance (0.01 gram)	23954	10/06/16			
Calipers (0.001 inches)	24319	05/21/16			
Load Frame	24004	02/01/17			



Failed Specimen



Type of Sample: UD  
 Source of Moisture Sample: 3/4 sample

Initial Dry Unit Weight: 95.5 pcf Initial Water Content: 29.3%  
 Unconfined Compressive Strength,  $q_u$ : 4.567 KSF  
 Undrained Shear Strength,  $s_u$ : 2.283 KSF

Liquid Limit: 72  
 Plasticity Index: 46  
 Height to Diameter Ratio: 2.0  
 Rate of Strain (%/m): 1.1  
 Strain at Failure: 5.1

References / Comments / Deviations:

Chisa Puckett  
 Technical Responsibility

May 26 2017 11:10 AM  
 X Chisa Puckett  
 Chisa Puckett

Senior Engineering Technician  
 Position

5/26/2017  
 Date

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## LABORATORY TESTING PROCEDURES

**Soil Classification:** Soil classifications provide a general guide to the engineering properties of various soil types and enable the engineer to apply past experience to current problems. In our investigations, samples obtained during drilling operations are examined in our laboratory and visually classified by an engineer. The soils are classified according to consistency (based on number of blows from standard penetration tests), color and texture. These classification descriptions are included on our "Test Boring Records."

The classification system discussed above is primarily qualitative and for detailed soil classification two laboratory tests are necessary: grain size tests and plasticity tests. Using these test results the soil can be classified according to the AASHTO or Unified Classification Systems (ASTM D 2487). Each of these classification systems and the in-place physical soil properties provides an index for estimating the soil's behavior. The soil classification and physical properties obtained are presented in this report.

**Compaction Tests:** Compaction tests are run on representative soil samples to determine the dry density obtained by a uniform compactive effort at varying moisture contents. The results of the test are used to determine the moisture content and unit weight desired in the field for similar soils. Proper field compaction is necessary to decrease future settlements, increase the shear strength of the soil and decrease the permeability of the soil.

The two most commonly used compaction tests are the Standard Proctor test and the Modified Proctor test. They are performed in accordance with ASTM D 698 and D 1557, respectively. Generally, the Standard Proctor compaction test is run on samples from building or parking areas where small compaction equipment is anticipated. The Modified compaction test is generally performed for heavy structures, highways, and other areas where large compaction equipment is expected. In both tests a representative soil sample is placed in a mold and compacted with a compaction hammer. Both tests have four alternate methods.

Test	Method	Hammer Wt./Fall	Mold Diam.	Run on Matl. Finer Than	No. of Layers	No. of Blows/Layer
Standard	A	5.5 lb./12"	4"	No. 4 sieve	3	25
D 698	B	5.5 lb./12"	4"	3/8" sieve	3	25
	C	5.5 lb./12"	6"	3/4" sieve	3	56

Test	Method	Hammer Wt./Fall	Mold Diam.	Run on Matl. Finer Than	No. of Layers	No. of Blows/Layer
Modified	A	10 lb./18"	4"	No. 4 sieve	5	25
D 1557	B	10 lb./18"	4"	3/8" sieve	5	25
	C	10 lb./18"	6"	3/4" sieve	5	56

The moisture content and unit weight of each compacted sample is determined. Usually 4 to 5 such tests are run at different moisture contents. Test results are presented in the form of a dry unit weight versus moisture content curve. The compaction method used and any deviations from the recommended procedures are noted in this report.

**Atterberg Limits:** Portions of the samples are taken for Atterberg Limits testing to determine the plasticity characteristics of the soil. The plasticity index (PI) is the range of moisture content over which the soil deforms as a plastic material. It is bracketed by the liquid limit (LL) and the plastic limit (PL). The liquid limit is the moisture content at which the soil becomes sufficiently "wet" to flow as a heavy viscous fluid. The plastic limit is the lowest moisture content at which the soil is sufficiently plastic to be manually rolled into tiny threads. The liquid limit and plastic limit are determined in accordance with ASTM D 4318.

**Moisture Content:** The Moisture Content is determined according to ASTM D 2216.

## Exhibit F

(Environmental Site Assessment to be  
distributed to Certified List through U.S.  
Postal Services)



## Exhibit G

**RETURN THIS FORM FILLED OUT WITH PHASE I SUBMITTAL**

**MINORITY BUSINESS ENTERPRISE (MBE) PARTICIPATION**

- 1.01 **CERTIFICATION OF MBE:** Any MBE utilized pursuant to this Section shall be certified as an MBE by one of the following: Kentucky Transportation Cabinet or other state Transportation agencies, the Louisville Metropolitan Sewer District, the Kentucky Minority Supplier Development Council or other state Minority Supplier Development Councils, the Kentucky Certification Cooperative, or the Small Business Administration.
- 1.02 **OBLIGATION OF BIDDER/CONTRACTOR:** Bidder/Contractor shall make a good faith effort to meet the MBE contract goal set by the Commonwealth by including MBE's as subcontractors and/or material suppliers on 10% of the total estimated cost of the Contract. The failure to meet the foregoing goal shall not result in disqualification from bidding or being awarded a contract. However, Bidders/Contractors not meeting the MBE goal shall be expected to provide written proof of their good faith efforts. Award of the contract shall be conditioned upon satisfaction of the requirements established by this section. The Bidder/Contractor shall attempt to divide the work in the contract to facilitate use of MBE's (however, there is no requirement that the work be artificially divided or divided in a way that raises the bid price of the Bidder/Contractor).
- 1.03 **PROOF REQUIRED:** Each bidder shall furnish written proof in their bid package that they reached the MBE participation goal for this Contract, or of their good faith efforts to meet the MBE participation goal. A copy of each participating MBE's certification shall accompany the required forms. All submissions shall be subject to verification of the Commonwealth.
- A. Proof that the apparent successful bidder reached the MBE goal shall consist of the following and shall be made on form MB-2-A, attached hereto:
1. The names and addresses of MBE firms that will participate in the contract;
  2. A description of the work each named MBE firm will perform;
  3. The dollar amount of participation by each named MBE firm;
  4. The percentage amount of participation by each named MBE firm;
- B. Proof that the apparent successful bidder made a good faith efforts to meet the MBE participation goal may include the following:
1. Advertisement by the Bidder/Contractor of MBE contracting opportunities associated with this contract in at least one of each of the following periodicals: a periodical in general circulation throughout the Commonwealth, a trade periodical focused on MBE contractors/suppliers in general circulation throughout the Commonwealth, and a minority-focused periodical in general circulation throughout the Commonwealth. The Bidder/Contractor shall include copies of the dated advertisements in his bid package;
  2. Written notice of MBE opportunities in this contract to at least five pertinent MBE's at least seven days prior to the bid opening date. Copies of the written notices shall be included in the bid package;
  3. The Bidder/Contractor's response(s) to those MBE's who requested plans, specifications and/or contracting requirements. Copies of said responses shall be included in the bid package;
  4. Documentation on form MB-2-B of good faith negotiations with at least three MBE's, with no rejection of a qualified MBE without sound reason, including price quotes that are above other subcontractor's price quotes;
  5. Utilization of the Finance and Administration Cabinet's Office of Equal Employment Opportunity and Contract Compliance for referrals to organizations that assist in locating MBE's. Proof of use of such referrals and contacts made as a result thereof shall be included in the bid package.

## MINORITY BUSINESS AVAILABILITY VERIFICATION

\_\_\_\_\_ does commit itself that on the following project:

NAME OF COMPANY

PROJECT NAME

BID INVITATION NUMBER

ENGINEERING FILE NUMBER

The Bidder agrees to furnish information required by the Commonwealth of Kentucky to indicate the Minority Business which it intends to utilize. Breach of this commitment constitutes breach of the Bidder's contract if awarded.

NAME OF MINORITY BUSINESS

TELEPHONE

TYPE OF WORK

DOLLAR VALUE

PERCENT

MINORITY CLASSIFICATION

The undersigned shall enter into a formal agreement with the minority business firms for work listed in this schedule conditioned upon execution of a contract with the Commonwealth of Kentucky.

Minority business firms listed above by the Bidder and accepted by the Owner and the Architect/Engineer shall be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the Owner and the Architect/Engineer. The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the Bidder to the commitment herein set forth.

Signature and title of authorized official of the company and the data shall be properly executed on this document or the bid will be deemed nonresponsive.

NAME OF AUTHORIZED OFFICER

TITLE

SIGNATURE

DATE

If you are bidding as a General Contractor on this project i.e. direct bidding and a Minority as defined herein, please provide a copy of your MBE Certification.

Submit with Bid.

(Please copy additional Minority Business Availability Forms as necessary.)

MB-2-B

# MINORITY BUSINESS UNAVAILABILITY VERIFICATION

I, \_\_\_\_\_, \_\_\_\_\_ (TITLE)

of \_\_\_\_\_  
(PRIME BIDDER)

certify that on \_\_\_\_\_ I contacted the following minority owned business by: (circle one) Certified Mail, Phone, In Person to obtain a bid for work items to be performed on the Contract.

MINORITY	CONTRACTOR	WORK ITEMS SOUGHT	FORM OF BID SUPPORT (I.E., UNIT PRICE, MATERIALS LABOR & LABOR ONLY)

To the best of my knowledge and belief, said minority owned business was unavailable (exclusive of unavailability due to lack of agreement on price) for work on this project, or unable to prepare a bid, for the following reason(s):

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

\_\_\_\_\_ was offered an  
(NAME OF MINORITY BUSINESS)

opportunity to bid on the above-identified work on \_\_\_\_\_ by

\_\_\_\_\_  
(SOURCE)

The above statement is a true and accurate account of why I did not submit a bid on this project.

\_\_\_\_\_  
(SIGNATURE OF MINORITY BUSINESS)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(DATE)

Submit with Bid if Applicable.  
(Please copy additional Minority Business Unavailability Forms as needed.)

## Exhibit H

## OWNERSHIP DISCLOSURE STATEMENT

- I. Please list below all persons that have an ownership interest in this property leased by the Commonwealth. If the property owner is a corporation, business trust, or partnership (per KRS 56:809), list the name of the corporation, business trust, or partnership and then list all persons having five percent (5%) or more ownership interest in such entities to include silent or limited partners. The lessor furthermore agrees to notify the Commonwealth of all persons involved in any change or transfer of ownership of five percent (5%) or more to include silent or limited partners. Non-compliance may result in termination of the lease agreement.

**Identify Lessor as:**

- ☐ Individual      ☐ Sole Proprietorship      ☐ Partnership/Joint Venture      ☐ Estate  
☐ Corporation      ☐ Public Service Corp.      ☐ Government/Non Profit Agency

Identify Social Security Number or Federal ID Number for Lessor: \_\_\_\_\_

<u>Name</u>	<u>Home Address</u>	<u>Social Security Number</u>	<u>% of Ownership</u>
(if more space is needed, please attach separate sheet)			

- II. Are there any of the owners of this lease, listed heretofore, and/or their immediate relatives (Father, Mother, Sister, Brother, Son, Daughter, Spouse) an officer or employee of any state agency, board, commission, etc..?

☐ YES      ☐ NO      If yes, please list:

<u>Owner</u>	<u>Full Name of Relative &amp; Social Security Number</u>	<u>Agency, Board or Commission</u>	<u>Title</u>
(if more space is needed, please attach separate sheet)			

- III. We are submitting the information requested and certify it to be accurate:

AUTHORIZED AGENT OF THE LESSOR: \_\_\_\_\_

TITLE: \_\_\_\_\_ TYPED NAME: \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

DAYTIME TELEPHONE: \_\_\_\_\_

\*\* NOTARY: \_\_\_\_\_ NOTARIZED THIS DATE: \_\_\_\_\_

COMMISSION EXPIRES: \_\_\_\_\_ COUNTY OF: \_\_\_\_\_

Did you fill out all the blanks? Please recheck. \*\* Form notarized with SEAL?

## Exhibit I



# Commonwealth of Kentucky SOLICITATION

**TITLE:** RFP 102317 Bluegrass Station Bldg 352 Notice

**DATE ISSUED**

08/03/2017

**SOLICITATION CLOSES**

Date: 10/23/17

**RECORD DATE**

08/03/2017

Time: 4:00 p.m.

**SOLICITATION NO.**

RFP 785 1800000032 Phases I &amp; II

**I  
S  
S  
U  
E  
D  
  
B  
Y**

 Finance Div of Real Property  
Nancy Brownlee

**A  
D  
D  
R  
E  
S  
S  
  
T  
O**

RP

 Division of Real Properties  
Bush Building, Third Floor, 403 Wapping Street

 FRANKFORT KY 40601  
US

**V E N D O R**
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S**

 Name:  
Address:  
City, State Zip Code:  
Phone #:  
Fax #:  
Email Address:  
Contact Name:  
Contact Email:  
Vendor Customer (VC) #:

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 Name:  
Address:  
City, State Zip Code:  
Phone #:  
Fax #:  
Email Address:  
Contact Name:  
Contact Email:  
Vendor Customer (VC) #:

**FOR INFORMATION CALL:**

 Nancy Brownlee  
502-564-2205

**ONLINE BIDDING PROHIBITED**

yes

**OWNERSHIP TYPE:**
☐ Sole Proprietorship ☐ Partnership ☐ Corporation

**SIGNATURE OF AUTHORIZED AGENT IS REQUIRED UNLESS RESPONSE IS SUBMITTED ELECTRONICALLY.**
**FAILURE TO SIGN SHALL RENDER THE BID INVALID.**

Signature X \_\_\_\_\_ FEIN# \_\_\_\_\_ DATE \_\_\_\_\_

*All offers subject to all terms and conditions contained in this solicitation.*



## Line Items

1 Commodity Group Default

Line	CL Description	Due Date	Quantity	Unit Issue	Unit Cost	Line Total Or Contract Amt
------	----------------	----------	----------	------------	-----------	----------------------------

1	RFP 102317 Bluegrass Station Bldg 352 Notice		0.00			
---	---	--	------	--	--	--

Comm Code	Comm Description	Manufacturer	Model #	Manuf Part #
-----------	------------------	--------------	---------	--------------

97100	REAL PROPERTY RENTAL OR LEASE			
-------	----------------------------------	--	--	--

**Extended Description**

RFP102317-Design, Build, Finance Built to Suit RFP Lease Contract for Approx 6.02 acres of land to private entity to Finance, Design, Develop, Construct and Lease Back to the Commonwealth Bldg 352 a 64,000 sqft maintenance and training facility (rotary wing aircraft hangar) and related infrastructure

<b>B I L L T O</b>	421083	<b>S H I P T O</b>	
	FAC FSS REAL PROPERTIES		
	403 WAPPING STREET		
	BUSH BLDG 3RD FLOOR		
	FRANKFORT KY 40601-2607		
	US		

Evaluation Criteria

*The following criteria will be used when determining the award of this solicitation*

Code	Criteria Description	Points	Vendor Response <i>(DO NOT LIST PRICES IN THIS SECTION. UNIT PRICES AND TOTAL PRICES MUST BE FILLED IN ADJACENT TO THEIR LINE ITEMS.)</i>
------	----------------------	--------	--

1800000032	<b>Document Phase</b> Final	<b>Document Description</b> RFP 102317 Bluegrass Station Bldg 352 Notice	<b>Page 4</b> of 4
------------	--------------------------------	---	-----------------------

To access the RFP document, click on the attachments button and download the attachments.

## Exhibit J

## PARTIAL PERMITS

The Building Code Official is authorized to issue a permit for any part of a building or structure before the plan complete package has been submitted. Upon request, the Building Code Official is also authorized to issue partial permits if an entire plan package has been filed but falls short of meeting the requirements for full permit.

The issuance of a partial permit is contingent upon adequate information and details having been filed to demonstrate compliance with all pertinent requirements of the Code.

## SITE / FOUNDATION

The following items are required before a Site and Foundation Permit is to be issued. Not all items will be applicable on each project. All drawings shall be dimensioned and drawn to scale.

☐ **ARCHITECT/ENGINEER**

The services of an Architect or Engineer shall be confirmed. When their services are required, the plans shall bear the seal and signature of the Architect and/or Engineer (KRS 322/323 and Table 122.1 of the KBC)

☐ **SITE PLAN**

A site plan showing the location of the building and its distance to property lines and other buildings on the same property and finished grades shall be submitted. (Section 106.2 KBC)

☐ **SITE SURVEY**

A plan illustrating the location of property lines and bearing the seal and signature of a land surveyor shall be submitted. (Section 106.2 KBC)

☐ **NOTICE:**

Information for the installation of underground sprinkler supply lines shown on the site plan is not covered under a site and foundation permit. A separate letter of approval or disapproval shall be required for this work. This work shall be performed by a Kentucky licensed sprinkler contractor. (refer to Krs 198B.560)

☐ **FOUNDATION PLAN**

A foundation plan and details shall be submitted, including anchorage details. This includes final anchor bolt plans from pre-engineered metal buildings,

☐ **FLOOR PLANS**

A floor plan of the building with sufficient information to identify all areas and the Use Group shall be submitted. (Chapter 3, KBC)

☐ **Seismic Design Data & Letter of Special Inspection**  
**(Sections 1603.1.5 and 1704)**

☐ **CONSTRUCTION TYPE**

Sufficient construction details (i.e. exterior walls, interior bearing structure and floor/roof assembly) shall be submitted to confirm the building will comply with the minimum construction required. (Chapters 5 and 6 KBC)

☐ **FIRE WALLS**

If a fire wall is provided, the location of this wall shall be identified on the foundation and floor plans. A full height section through the wall shall be submitted.

**FIRE WALL-** A wall designed with a noncombustible material, specified fire rating and structurally independent to allow collapse of construction on either side without causing collapse of the wall itself. A fire wall shall be continuous from footer to or through roof. (Section 705. KBC)

☐ **SUPPRESSION SYSTEM**

Fire suppression design criteria shall be submitted when the project requires a sprinkler system involving more than 10 sprinklers. This applies to limited area systems as well as full coverage systems. (Section 903.2 and 302.1.1, KBC)

☐ **ADDITIONS**

If the proposed structure is an addition to an existing structure, information confirming the following shall be submitted for the existing building: (Section 3403 KBC)

- a) Construction Type;
- b) Fire wall location, construction and fire rating;
- c) Building Area
- d) Number Stories
- e) Use group Classification; and
- f) Type suppression system (Full coverage of limited area).

☐ **FEE**

The architectural plan review fee shall be paid in full before any release for construction can be issued. (Section 121 KBC)

☐ **FAST TRACK ELECTIVE**

For applicants seeking a quicker footing and foundation review only. The drawings and documents identified above submitted by close of business any Wednesday, for a S/F review the following Friday afternoon. Fee shall be calculated from Table 121.3.1 plus an additional 50% of the full fee. Additional fee shall not be less than \$400 and not more than \$3000.